

Claims:

1. A method of preparing a plasma-protein-containing medicament from citrated plasma or from a citrate-containing plasma fraction, which medicament is substantially free from undesired metals and also does not take up any metals when stored in metal-containing containers, which method comprises the following steps:

- exchanging the citrate and optionally citrate-bound metals in a plasma-protein-containing solution for a water-soluble mono- or dicarboxylate or for an organic mono- or dicarboxylic acid under non-precipitating conditions,
- recovering the plasma protein or the plasma proteins, and
- finishing the medicament.

2. A method according to claim 1, characterized in that as the plasma-protein-containing medicament, a medicament comprising one or several plasma proteins selected from the group consisting of the factors of coagulation and fibrinolysis, immunoglobulins, glycoproteins and albumin is prepared.

3. A method according to claim 1 or 2, characterized in that a salt of an organic carboxylic acid having 2 to 20 carbon atoms is used for exchanging the citrate.

4. A method according to any one of claims 1 to 3, characterized in that a caprylate and/or a tartrate is used for exchanging the citrate.

5. A method according to any one of claims 1 to 3, characterized in that an organic mono- or dicarboxylic acid having 2 to 4 carbon atoms is used for exchanging the citrate.

6. A method according to any one of claims 1 to 5, characterized in that a plasma-protein-containing medicament which is substantially free from aluminum is prepared.

7. A method according to any one of claims 1 to 6, characterized in that exchanging of the citrate is effected during a diafiltration, ultrafiltration, a gel permeation chromatography or a chromatographic separation method, respectively, which enable the separation of the protein from salts.

8. A method according to any one of claims 1 to 7, characterized in that before the exchange, the plasma-protein-containing solution is purified and/or concentrated.

9. A method according to any one of claims 1 to 8, characterized in that the plasma-protein-containing solution is treated, preferably heat-treated, before and/or after the exchange, so as to inactivate possibly present viruses.

10. A method according to any one of claims 1 to 9, characterized in that the virus inactivation treatment is effected immediately after the recovery of the plasma protein in the presence of the mono- or dicarboxylate.

11. A method according to any one of claims 1 to 10, characterized in that finishing of the medicament is effected exclusively with citrate-free components.

12. A method according to any one of claims 1 to 11, characterized in that the exchange of the citrate is effected in the presence of sodium chloride, preferably with an at least 4 % by weight sodium chloride solution.

13. A plasma-protein-containing medicament obtainable according to a method according to any one of claims 1 to 12, having a content of undesired metals, in particular aluminum, of less than 100  $\mu\text{g/l}$ , preferably less than 10  $\mu\text{g/l}$ , in particular less than 200  $\text{ng/l}$ .

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